

DISTRICT COURT, CITY AND COUNTY OF DENVER, STATE OF COLORADO

Case No. 94 CV 5459

Courtroom 7

SECOND ORDER AMENDING CONSENT DECREE

SUNNYSIDE GOLD CORPORATION,

Plaintiff,

v.

COLORADO WATER QUALITY CONTROL DIVISION OF THE COLORADO
DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,

Defendant.

Pursuant to second joint petition of the parties hereto, the Consent Decree previously entered by this Court on May 8, 1996 is hereby amended as set forth in the second joint petition. Appendix C-2 shall become a formal part of Appendix C to that Consent Decree, effective ~~September~~, 1998. *January 4, 1999.*

Dated _____, 1998

JAN 04 1999

BY THE COURT:

[Signature]

District Court Judge

COPY TO MOVING PARTY, WHO
IS TO SEND COPY(IES) TO ALL
OTHER COUNSEL OF RECORD.

SECOND JOINT PETITION FOR AMENDMENT OF CONSENT DECREE

SUNNYSIDE GOLD CORPORATION,

Plaintiff,

v.

COLORADO WATER QUALITY CONTROL DIVISION OF THE COLORADO
DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,

Defendant.

Sunnyside Gold Corporation ("SGC") and the Colorado Water Quality Control Division ("WQCD"), by their respective counsel, hereby jointly petition the Court for a second amendment of the Consent Decree previously entered in this matter on May 8, 1996, and in support of this second joint petition, state as follows:

1. On May 8, 1996, this Court entered its Consent Decree resolving a declaratory judgment action between the parties. Paragraph 36 of the Consent Decree requires that the parties jointly petition the Court for any amendment to any portion of the Consent Decree or its appendices.

2. SGC has proposed three additional mitigation projects as "B List" projects pursuant to the Consent Decree at paragraph 9(b) and on Appendix B. Work plans for such projects have been submitted to the WQCD.

3. WQCD has reviewed the Work Plans and has certified that these projects qualify for coverage under Storm Water Permit #COR-040054, pursuant to the Colorado Water Quality

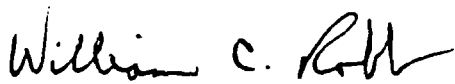
Control Act. The certification and the three project work plans are attached hereto and will collectively become Appendix C-2 to the Consent Decree.

4. If these B-List projects are implemented by SGC, they will be at SGC's expense or the expense of others by agreement. The work would be performed on the schedule for B-List projects.

WHEREFORE, the parties jointly petition this Court for entry of an order amending the May 8, 1996 Consent Decree authorizing the addition of the three projects to the B-List of projects as described in Appendix C-2.

Respectfully submitted this 30th day of December, 1998.

DUFFORD & BROWN, P.C.

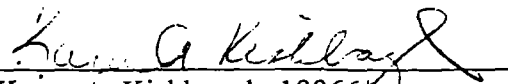


William C. Robb, #5898
1700 Broadway, Suite 1700
Denver, CO 80290-1701
Telephone: (303) 861-8013

**ATTORNEYS FOR SUNNYSIDE GOLD
CORPORATION**

**OFFICE OF THE ATTORNEY
GENERAL**

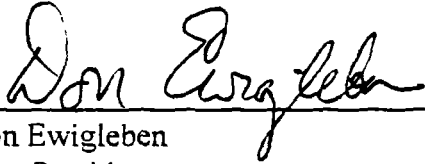
GALE A. NORTON
Attorney General
RICHARD A. WESTFALL
Solicitor General
PATRICIA S. BANGERT
Director of Legal Policy
CASEY SHPALL
Acting First Assistant Attorney General



Karen A. Kishbaugh, 18866
Assistant Attorney General
Natural Resources Section
1525 Sherman Street, 5th Floor
Denver, CO 80203
Telephone: (303) 866-5072

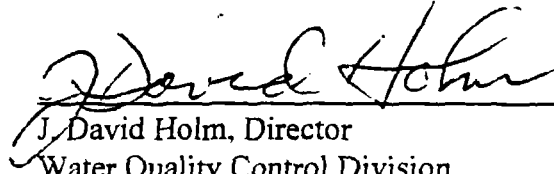
**ATTORNEYS FOR WATER QUALITY
CONTROL DIVISION**

SUNNYSIDE GOLD CORPORATION



Don Ewigleben
Vice President

**WATER QUALITY CONTROL
DIVISION OF THE COLORADO
DEPARTMENT OF PUBLIC HEALTH
AND ENVIRONMENT**



J. David Holm, Director
Water Quality Control Division
Colorado Department of Public Health and
Environment

STATE OF COLORADO

Roy Romer, Governor
Patti Shwayder, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Laboratory and Radiation Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver CO 80220-6928
Located in Glendale, Colorado (303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

September 21, 1998

Larry Perino
Sunnyside Gold Corp.
P.O. Box 177
Silverton, CO 81433

Re: Permit Certification Modification
Sunnyside Gold Corp. - Mayflower Mill
CDPS Cert. No. COR-040054
San Juan County

Dear Mr. Perino:

Thank you for your letter of September 3, 1998, regarding the above-referenced permit. You have requested that three projects, that deal with interception and diversion of water, be included under this certification. The sites are: Mayflower Facility - Upland Hydrological Control, Tailings Pond No. 4 Surface Drainage Modification, and Tailings Pond No. 4 Upland Groundwater Diversion. Since the sites are contiguous, and the work involved is consistent with activities related to active mining and the prevention of stormwater pollution, we have amended your certification accordingly via this letter.

If you have any further questions, please give me a call at (303) 692-3596.

Sincerely,

Kathryn Dolan
Stormwater Program Coordinator
Permits Unit
WATER QUALITY CONTROL DIVISION

xc: William Robb, Dufford & Brown
Karen Kishbaugh, AGO
Local Health Dept.
District Engineer, WQCD
File Copy

Mine Remediation Plan: Tailings Pond No. 4 Surface
Drainage Modification

Remediating Party: Sunnyside Gold Corporation
PO Box 177
Silverton CO 81433

Contact: Larry Perino
Reclamation Manager

I. Description of Mining Activities

Physical Description of Conditions

Surface runoff from approximately 16 acres is currently captured with no drainage outlet and forced to evaporate or percolate into the groundwater regime at the southwest corner of Tailings Pond No. 4. It is probable that water percolating into the groundwater regime contacts mill tailings prior to reaching the groundwater. Surface runoff is isolated from the tailings material by a vegetated soil cap and would be unaffected if allowed to exit the site prior to infiltration as stormwater runoff.

This area was originally constructed with no surface drainage outlet because prior to 1990 the slopes were uncapped tailings and was contained as a BMP for the existing conditions.

General Description of the Project Site

The project area is located approximately 0.25 miles northeast of the Silverton town limit on Colorado Highway 110 and is the highway drainage ditch with the runoff area being the out-slopes of Tailings Pond No. 4. See attached location map.

Identification of Lands

The project area is on land owned by Sunnyside Gold Corporation (SGC) although the drainage outlet will be across the Highway 110 Right-of-Way owned by the Colorado Department of Transportation (CDOT) and will require a CDOT utility installation permit. The area is also within Sunnyside's MLR permit area (M-77-378) and a Technical Revision approval from DMG will be required.

Latitude	37 degrees 49 minutes
Longitude	107 degrees 39 minutes

Identification of the Waters of the United States Potentially Affected

Segment 3A of the Animas River would be the Waters of the United States that this project would have the potential to benefit.

2. Site Map

Attached

3. Stormwater Management Controls

During construction, SGC will use temporary hay bale sediment traps as necessary to minimize sediment transport from the site into the existing drainage. For long-term control of sediment transport, SGC will plant and establish vegetation on the disturbed area.

4. Inspection and Record Keeping Procedures

The Reclamation Manager or Technical Service Department will inspect this project during construction for conformance to the work plan. Progress reports on this project will be incorporated into the monthly report including quarterly photographs to Colorado Division of Minerals and Geology and the Colorado Department of Public Health and Environment for CDPS Permit No. CO- 0044768.

5. Mine Remediation Plan

Legal Right to Enter and Conduct Activities

SGC owns the property where this project will be implemented with the exception of where a drainage culvert would have to pass under Colorado Highway 110. The highway Right-of-Way is owned by CDOT and a utility permit would be required to place this culvert. In addition, the project area is within SGC's MLR permit area and an approved TR will be required to install the proposed drainage pathways and modify the area drainage plan.

No activity will start prior to obtaining the required permit and TR approval. If the permit or TR approval cannot be obtained, the project cannot proceed.

Remedial Goals and Objectives

The Tailings Pond No. 4 Surface Drainage Modification Project's goal would be to minimize groundwater contact with mill tailings through the use of hydrological control installations in order to reduce any potential for impact on the Animas River from dissolved metals.

Site Loading Estimate

The site loading estimate for this project was based on visual observations and weighing potential impact based on assumptions and observations using data extrapolations from tests on similar material.

—Observations and Assumptions

- Surface drainage from approximately 16 acres has been observed to runoff and collect along the toe of Tailings Pond No. 4 to percolate into the groundwater system or evaporate.
- It is assumed that if oxygenated surface water percolates and contacts tailings material, dissolved metals will be picked up by the migrating water.

—Methodology for Estimation of Potential Loading

- The contributing watershed area for the drainage project was measured to be approximately 16 acres. It was assumed that the average annual precipitation on this area would be similar to the average at the Silverton weather station which is nearby. It was also assumed that 60 percent of this precipitation reported as run-off to the toe of Tailings Pond No. 4 for evaporation or infiltration with a 90 percent infiltration rate with potential for contact with tailings material.
- Loading was calculated based on 1:1 leach test results from similar material. Dilution was assumed at 10:1 because it is probable that at least some of the infiltrating surface runoff passes directly through tailings material with contact being less diluted (by a factor of 2) than the 20:1 dilution used for TCLP testing.

—Estimation of Dissolved Zinc Loading Potential

- Based on the above methodology for estimation, it is estimated that the potential exists for an annualized daily loading of 12 pounds of dissolved zinc.

SGC is under no obligation to defend these estimates and they should only be used as an estimate using many assumptions to obtain. SGC does not represent that its mitigation project at this site will remove any specific percentage of metals loading from this site: the loading estimate contained herein does not form the basis for an enforceable permit obligation

Description of Project

—The existing drainage path and ponding area will be shaped and graded to accept an invert liner (40 mil PVC) and to drain towards an outlet culvert. This liner material will be covered with subsoil material to protect it and to allow vegetation to grow. Any disturbed areas will also be vegetated to minimize erosion and sediment transport.

—A 24 inch ADS (or other material acceptable to CDOT) will be placed to CDOT specifications to allow any surface drainage collected to drain freely under Colorado Highway 110 to existing drainage paths.

—Temporary sediment control measures will be used as necessary to minimize sediment transport from the site.

Analysis

Installation of structures and control of drainage to minimize the potential for water to contact tailings and mine waste material is a Best Management Practice. Any reduction in contact of mine waste or tailings with flowing water has the potential for reduction in metals loading to the Animas River.

The existing drainage and holding configuration is a remnant from the original design of Tailings Pond No. 4 when tailings sand was used for embankment material. Any runoff from this area had contacted tailings material and containment was a Best Management Practice for the configuration at that time. The pond embankment has since been capped with subsoil and vegetated thereby eliminating contact of surface runoff with tailings material. Allowing surface runoff to leave the area prior to percolation into the capped tailings material will serve to minimize contact of tailings material with flowing water and reduce any metals loading that may occur as a result of the contact. Implementation of the work plan will not materially alter the land or create any land use changes or potential uses.

Monitoring

Due to the close proximity to other Animas River monitoring stations and the high flows that occur in the Animas River, no additional monitoring is contemplated for this project. Improvements would be reflected in the monthly monitoring results from A-68.

Budget

SGC will fund this project

Description of Land Use

Implementation of the work plan will not alter the existing or proposed future land use for the work plan area. The proposed land use is for limited wildlife habitat in a mountain park ecosystem.

6. Consistency with Other Plans

Implementation of the work plan will require an approved Technical Revision to SGC's MLR Permit (M-77-378) and modification of the drainage plan for the area Stormwater Permit (COR-040054) SWMP

SITE CHARACTERIZATION DATA SUMMARY

SITE: TAILINGS POND NO.4 SURFACE DRAINAGE MODIFICATION

MEDIA SOURCE: Boulder Creek Tails

Analysis Method	Data Source	pH s.u	Al ppm	Cd ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
1.1 Water Bath	SGC		158	5.18	67.2	220	249	2.42	1125
Mod. 1312 TCLP	SGC		14.8	0.334	4.49	8.7	11.7	3.55	80.5
Total Metal	SGC	2	4450	115	3310	52000	1130	26200	36500

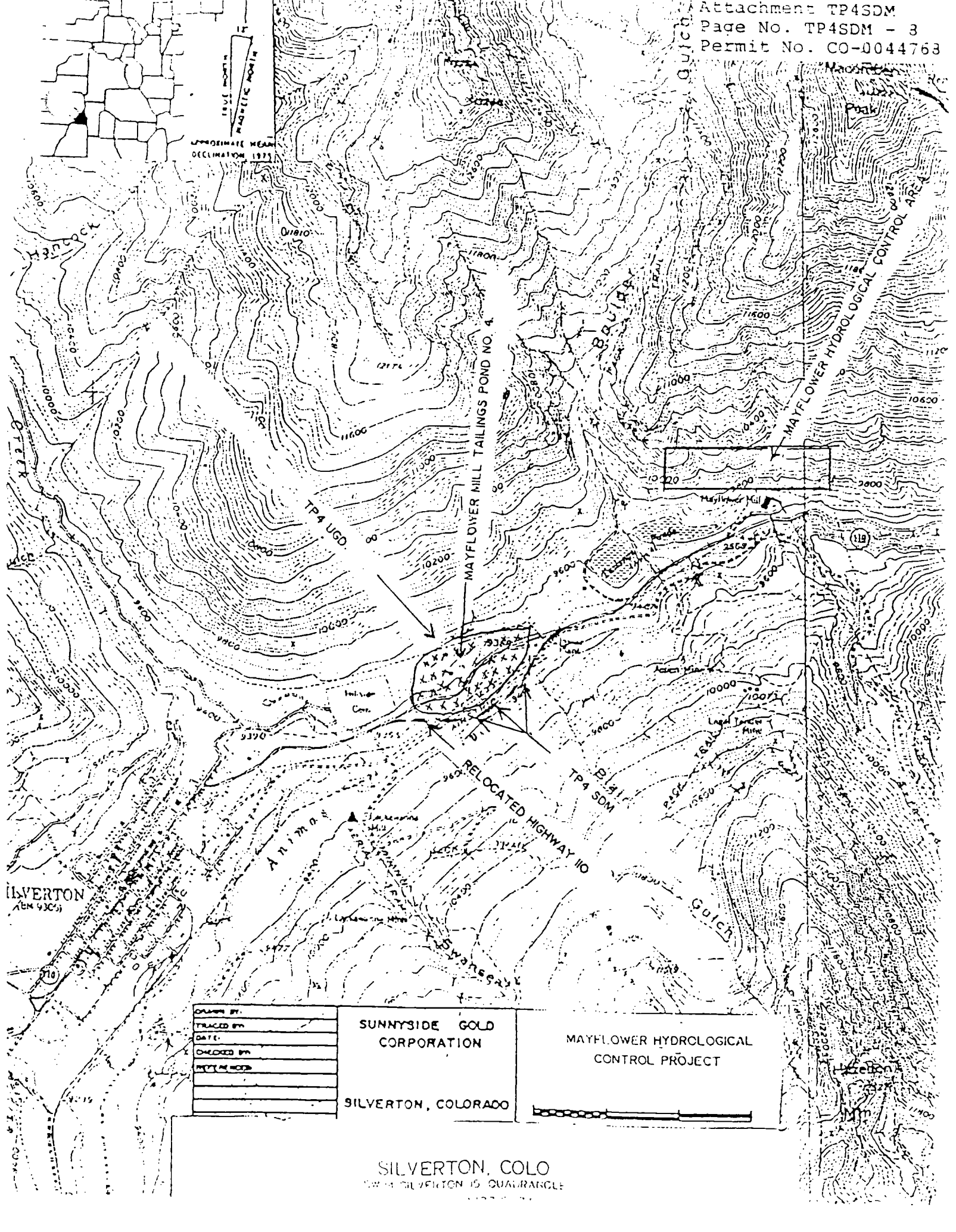
SITE CHARACTERIZATION DATA SUMMARY

SITE: TAILINGS POND NO.4 SURFACE DRAINAGE MODIFICATION

RAINFALL DATA:

Source - Silverton Weather Station

YEAR	Rain (inch)	Snow (inch)	Moisture as Snow (inch)	Total Moisture (inch)
June '91-May '92	9.55	134.75	11.58	21.10
June '92-May '93	9.82	260.5	12.89	22.71
June '93-May '94	7.42	130.5	10.03	17.45

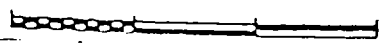


OWNER BY
TRACED BY
DATE
CHECKED BY
PROJECT NO.

SUNNYSIDE GOLD
 CORPORATION

 SILVERTON, COLORADO

MAYFLOWER HYDROLOGICAL
 CONTROL PROJECT



SILVERTON, COLO
 10 MILES SILVERTON IS QUADRANGLE

Mine Remediation Plan: Tailings Pond No. 4 Upland
Groundwater Diversion

Remediating Party: Sunnyside Gold Corporation
PO Box 177
Silverton CO 81433

Contact: Larry Perino
Reclamation Manager

I. Description of Mining Activities

Physical Description of Conditions

Tailings Pond No. 4 was constructed as a hillside impoundment in an alluvial valley. The hillside contact is glacial till and up-gradient of this contact area are alluvial fans from cliff erosion. Snow-melt and rainfall that is not lost to evaporation or plant transpiration reports as surface runoff or infiltrates to flow as groundwater to the streams in the valley floor. A percentage of the infiltrating water flows as groundwater on the bedrock-subsoil contact especially, where a drainage channel flows over a bedrock-alluvial fan contact where the infiltration rate could be large.

Sunnyside Gold Corporation (SGC) has installed a continuous lined surface runoff interception and diversion ditch up-gradient from Tailings Pond No. 4. This ditch is effective in diverting upland surface runoff water around the deposited tailings. SGC has also constructed a groundwater cutoff wall along approximately 400 feet of the hillside contact where seeps and springs were indicative that bedrock contact was close to surface and subsurface water existed in this area in the spring. This cutoff wall was constructed of compacted and/or poured concrete starting at the bedrock contact and rising to an elevation that allows pipes to drain any intercepted groundwater into the lined surface diversion ditch and around the tailings.

Based on topography and up-gradient springs that are currently diverted around the tailings by the surface water diversion ditch in areas not covered by the existing groundwater cutoff wall, it is possible that additional long term benefits to water quality could be realized by extending the cutoff wall.

General Description of the Project Site

The Tailings Pond No. 4 Upland Groundwater Diversion Project site is located on the hillside directly above Tailings Pond No. 4. The site is 0.25 miles northeast of the Silverton town limit on Colorado Highway 110. See attached location map.

Identification of Lands

The project area is on land owned by Sunnyside Gold Corporation (SGC) or Public Land (BLM) where SGC has right of use through unpatented mill site claims. The probable location of the cutoff wall is also likely to be within the boundary of the Tailings Pond No.4 Mined Land Reclamation Permit area (M-77-378) and Stormwater Permit area (COR-040054).

Latitude	37 degrees 49 minutes
Longitude	107 degrees 39 minutes

Identification of the Waters of the United States Potentially Affected

Segment 3A of the Animas River would be the Waters of the United States that this project would have the potential to benefit.

2. Site Map

Attached

3. Stormwater Management Controls

During construction, SGC will use temporary hay bale sediment traps as necessary to minimize sediment transport from the site. For long-term control of sediment transport, SGC will plant and establish vegetation on the disturbed area.

4. Inspection and Record Keeping Procedures

The Reclamation Manager or Technical Service Department will inspect this project during construction for conformance to the work plan. Progress reports on this project will be incorporated into the monthly report including quarterly photographs to Colorado Division of Minerals and Geology and the Colorado Department of Public Health and Environment for CDPS Permit No. CO- 0044768

5. Mine Remediation Plan

Legal Right to Enter and Conduct Activities

SGC owns the property where this project will be implemented. In addition, the project is within SGC's MLR permit area and an approved TR may be required for installation of the groundwater cutoff wall extension

No activity will start prior to obtaining any required approval. If any approvals are required and cannot be obtained, the project cannot proceed

Remedial Goals and Objectives

The Tailings Pond No. 4 Upland Groundwater Diversion Project's goal would be to minimize the potential for groundwater to contact mill tailings through the use of hydrological control installations in order to reduce any potential for impact on the Animas River from dissolved metals.

Site Loading Estimate

The site loading estimate for this project was based on visual observations and weighing potential impact based on assumptions and observations using data extrapolations from tests on similar material.

—Observations and Assumptions

- The drainage area behind Tailings Pond No. 4 is approximately 150 acres. Surface streams do not exist in this area.
- It is assumed that 15 percent of the precipitation is lost through evaporation and transpiration and that SGC's existing diversion structures capture 60 percent of the near surface groundwater flow and any surface runoff from the drainage area.
- It is assumed that if oxygenated water percolates and contacts tailings material dissolved metals will be picked up by the migrating water.

—Methodology for Estimation of Potential Loading

- It was assumed that the annual precipitation on the drainage area would be the average of Red Mountain and Silverton weather stations due to topography.
- The assumption was made that not all of the water could contact tailings and 15 percent was the estimated quantity of migrating groundwater that potentially could contact tailings.
- Loading was calculated based on 1:1 leach test results from similar material (ie. tailings from the same source). These results were divided by 20 to account for groundwater type exposure. This dilution (20:1) is consistent with dilutions used for TCLP testing.

—Estimation of Dissolved Zinc Loading Potential

- Based on the above methodology for estimation, it is estimated that the potential exists for an annualized daily loading of 9 pounds of dissolved zinc.

SGC is under no obligation to defend these estimates and they should only be used as an estimate using many assumptions to obtain. SGC does not represent that its mitigation project at this site will remove any specific percentage of metals loading from this site; the loading estimate contained herein does not form the basis for an enforceable permit obligation.

Description of Project

- Identify the strike length where extension of the groundwater cutoff wall is technically and economically feasible through trenching to define bedrock contact and location of groundwater flows.
- Install impermeable barriers to impede groundwater flow on the bedrock contact in areas identified where groundwater flow is occurring and installation of an interception structure is feasible.
- Install piping and drains where needed to capture flows and provide a drainage path to the existing lined up-land diversion ditch.
- Temporary sediment control structures will be used as necessary to minimize sediment transport from the site. Disturbed areas will be vegetated to minimize erosion and sediment transport in the long-term.

Analysis

Installation of structures and control of drainage to minimize the potential for water to contact tailings and mine waste material is a Best Management Practice. Any reduction in contact of mine waste or tailings with flowing water has the potential for reduction in metals loading to the Animas River.

The original design and construction of Tailings Pond No. 4 was according to standards prevailing at the time which did not include an underdrain and liner system to assure separation of tailings and migrating water. If any of the groundwater flowing on the bedrock contact surfaces at the contact of tailings-soil before passing under the tailings pond, it will contact tailings and the potential exists for an increase in metals loading to the receiving stream (ie. Animas River). Providing a drainage pathway to minimize contact of flowing water with tailings material will serve to reduce any metals loading that may occur as a result of the contact. Implementation of the work plan will not materially alter the land or create any land use changes or potential uses.

Monitoring

Due to the close proximity to other Animas River monitoring stations and the high flows that occur in the Animas River, no additional monitoring is contemplated for this project. Improvements would be reflected in the monthly monitoring results from A-68

Budget

SGC will fund a portion of this project and will require additional wall extension through site improvement commitments in lieu of payment for land usage in this area by the BLM for basin remediation project (s) mill tailings disposal.

Description of Land Use

Implementation of the work plan will not alter the existing or proposed future land use for the work plan area. The proposed land use is for limited wildlife habitat in a mountain park ecosystem.

6. Consistency with Other Plans

Implementation of the work plan will require an approved Technical Revision to SGC's MLR Permit (M-77-378) if previous construction and existing up-land diversion language in the permit plan is not adequate for construction. The concept is consistent with the plan.

SITE CHARACTERIZATION DATA SUMMARY

SITE: TAILINGS POND NO.4 UPLAND GROUNDWATER DIVERSION

RAINFALL DATA:

Source - Silverton Weather Station

YEAR	Rain (inch)	Snow (inch)	Moisture as Snow (inch)	Total Moisture (inch)
June '91-May '92	9.55	134.75	11.58	21.10
June '92-May '93	9.82	260.5	12.89	22.71
June '93-May '94	7.42	130.5	10.03	17.45

Source Idarado Mining Company- Red Mountain Weather Station

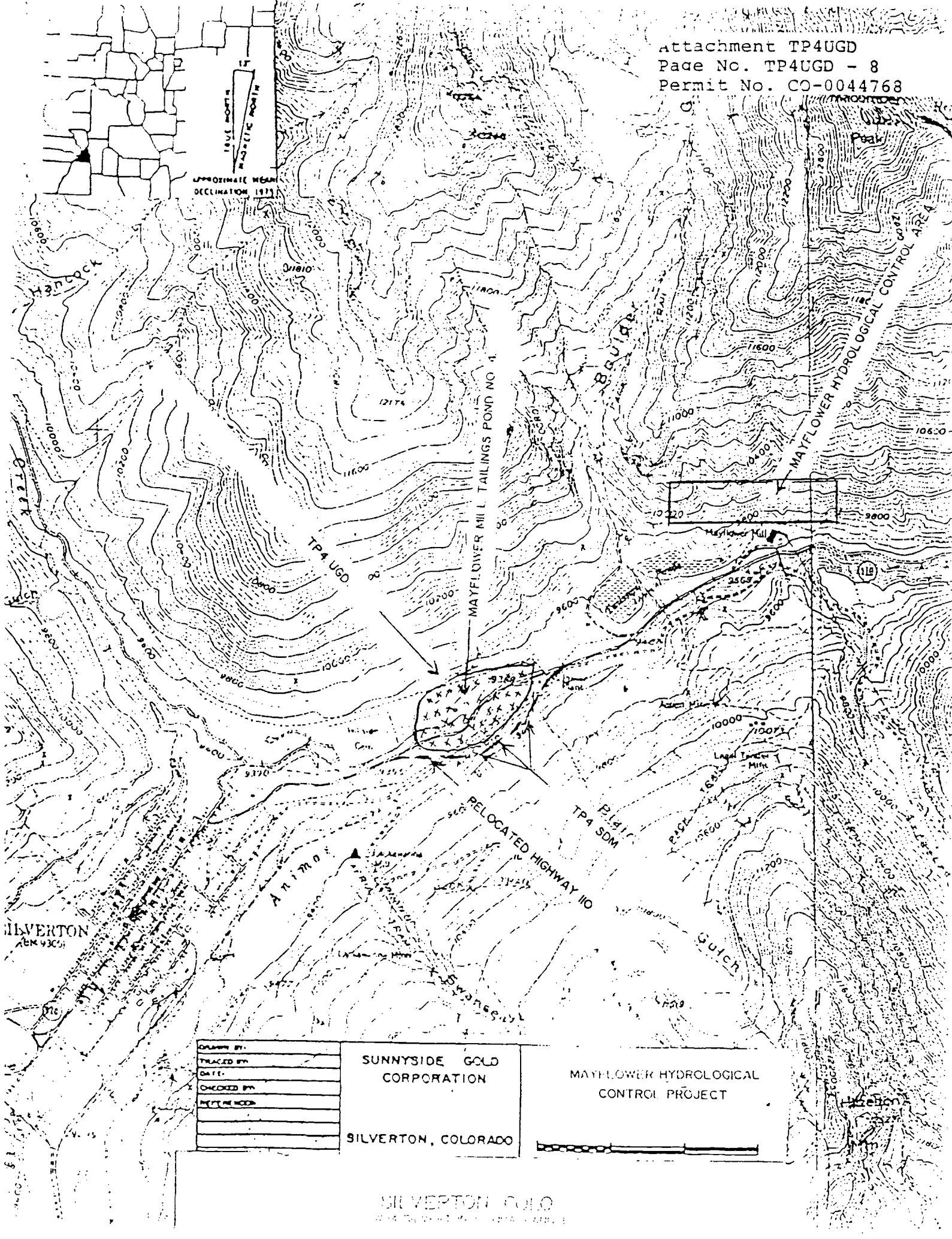
YEAR	Rain (inch)	Snow (inch)	Moisture as Snow (inch)	Total Moisture (inch)
June '91-May '92	8.0	444.5	35.56	43.56
June '92-May '93	8.8	545.5	49.89	58.69
June '93-May '94	7.1	330.5	26.12	33.22

SITE CHARACTERIZATION DATA SUMMARY

SITE: TAILINGS POND NO.4 UPLAND GROUNDWATER DIVERSION

MEDIA SOURCE: Boulder Creek Tails

Analysis Method	Data Source	pH s.u	Al ppm	Cd ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
1:1 Water Bath	SGC		158	5.18	67.2	220	249	2.42	1125
Mod. 1312 TCLP	SGC		14.8	0.334	4.49	8.7	11.7	3.55	80.5
Total Metal	SGC	2	4450	115	3310	52000	1130	26200	36500



DESIGNED BY	
TRACED BY	
DATE	
CHECKED BY	
IN CHARGE	

SUNNYSIDE GOLD
 CORPORATION
 SILVERTON, COLORADO

MAYFLOWER HYDROLOGICAL
 CONTROL PROJECT

Mine Remediation Plan: Mayflower Facility - Upland
Hydrological Control

Remediating Party: Sunnyside Gold Corporation
PO Box 177
Silverton CO 81433

Contact: Larry Perino
Reclamation Manager

I. Description of Mining Activities

Physical Description of Conditions

The natural drainages on the slopes of Tower Mountain up-gradient from the Mayflower Mill facility and Tailings Pond No. 1 gather snow-melt and rainfall runoff on approximately 150 acres. Due to the limited soil cover in this area, a large percentage of the precipitation that falls reports as surface runoff until the rock - landslide contact where these flows go underground to emerge lower in the valley as seeps and springs. The Mayflower Mill facility and Tailings Pond No. 1 are located within the pathway of these drainage and at the upper elevation of where these seeps and springs begin to emerge. It is probable that these seeps and springs have contact with tailings and mine waste material especially when higher flows exist in the spring. Currently up-land drainage control exists at this facility to intercept and divert surface runoff around the site. This interception and hydrological control project will address flows entering the groundwater regime outside the facility boundary.

General Description of the Project Site

The hydrological control site is located on the slope of Tower Mountain directly behind the Mayflower Mill facility and Tailings Pond No. 1 located on the west side of the facility. The site is 1.3 miles northeast of the Silverton town limit on Colorado Highway 110. See attached location map.

Identification of Lands

The interception points for the hydrological control project are located on public lands administered by the Bureau of Land Management, and land owned by Sunnyside Gold Corporation (SGC) but outside the facility Stormwater Permit area (COR- 040054) and Mined Land Reclamation Permit area (M77-378). The constructed drainage pathways will divert water into the existing up-gradient

diversion system for the Mayflower Mill and Tailings Pond No. 1 facilities.

Latitude 37 degrees 50 minutes
Longitude 107 degrees 38 minutes

Identification of the Waters of the United States Potentially Affected

Boulder Creek above the confluence with the Animas River and the Animas River - Segment 3A.
See attached map.

2. Site Map

Attached

3. Stormwater Management Controls

Temporary sediment traps will be used to minimize sediment transport during construction. These sediment traps may consist of stilling basins, silt fence, or hay bale dams. The traps and accumulated sediments will be removed upon project completion.

4. Inspection and Record Keeping Procedures

The Reclamation Manager or Technical Service Department will inspect this project during construction for conformance to the work plan. Progress reports on this project will be incorporated into the monthly report including quarterly photographs to Colorado Division of Minerals and Geology and the Colorado Department of Public Health and Environment for CDPS Permit No. CO- 0044768.

5. Mine Remediation Plan

Legal Right to Enter and Conduct Activities

SGC will obtain the right to conduct activities on property not owned by SGC prior to initiating activity on that property. In the case of private property, access agreements will be obtained and for public land, the legal right to conduct activities would be obtained by permit, access agreement, right-of-way, or by claim. No activity will start on lands currently not owned by SGC prior to obtaining a legal right of entry for implementing the project. If access is not obtained for any portion of this project, it cannot go forward unless an alternate route can be found.

Remedial Goals and Objectives

The Mayflower Upland Hydrological Control Project's goal would be to minimize groundwater and surface water contact with mill tailings and mine waste through the use of hydrological control installations in order to reduce any potential for impact on the Animas River from dissolved metals.

Site Loading Estimate

The site loading estimate for this project was based on visual observations and weighing potential impact based on assumptions and observations using data extrapolations from tests on similar material, and monitoring data for Sunnyside's MLR permit.

—Observations and Assumptions

- Three drainages were found to be flowing on surface above Tailings Pond No. 1 and the Mayflower Mill area but not reaching the surface diversion structures in place to intercept and divert surface water around these facilities.
- Seeps and springs have been observed at the base and below these facilities during high groundwater season (ie. snowmelt conditions). These seeps and springs appear to occur along projections of pre-facility drainages that would match the disappearing surface flows found above the facilities.
- It is assumed that if oxygenated surface water percolates and contacts tailings material, dissolved metals will be picked up by the migrating water.

—Methodology for Estimation of Potential Loading

- The contributing watershed area for these drainages was measured to be approximately 150 acres. It was assumed that the average annual precipitation on this area would be the average of Red Mountain and Silverton weather stations due to topography. It was assumed 60 percent of this precipitation reported as run-off to these drainages with 10 percent having potential for contact with mill tailings and mine waste.
- Loading was calculated based on 1:1 leach test results from similar material (ie. tailings and mine waste from the same source). These results were divided by 20 to account for groundwater type exposure. This dilution (20:1) is consistent with dilutions used for TCLP testing.

—Estimation of Dissolved Zinc Loading Potential

- Based on the above methodology for estimation, it is estimated that the potential exists for an annualized daily loading of 10 pounds of dissolved zinc. This potential loading occurs primarily during snow-melt season over a three month period. Therefore, the potential exists for a seasonal loading of 30 pounds of dissolved zinc per day.

SGC is under no obligation to defend these estimates and they should only be used as an estimate using many assumptions to obtain. SGC does not represent that its mitigation project at this site will remove any specific percentage of metals loading from this site: the loading estimate contained herein does not form the basis for an enforceable permit obligation.

Description of Project

—Inlet structures will be constructed in drainages A and C (see included maps) to capture the surface drainage before it goes underground. These structures will divert the flow into buried ADS pipe for transport to Sunnyside's existing stormwater diversion ditches. If required to prevent leakage, these existing diversion ditches will be up-graded by installation of an invert liner. In the event that a buried pipeline is found to be impractical, the existing drainage paths A and /or C will be cleaned and shaped to accept an invert liner (40 mil PVC). This liner material will be covered with dirt and armor material to protect the liner from tears associated with rock scour in high flow events. These pathways lead to Sunnyside's existing stormwater diversion ditches.

—Drainage path B is not a clearly defined natural drainage channel but topography indicates that it is a drainage path and surface flows have been observed infiltrating to flow as groundwater along this rock defined pathway. A point has been defined where it may be possible to expose bedrock. At this point, an interception structure will be constructed to capture the flow and divert it into a buried ADS pipe for transport to the existing stormwater diversion ditch. If the bedrock contact cannot be technically and economically exposed for construction of the interception structure, drainage path B will not be intercepted.

—Revegetation of any vegetation disturbed by construction.

—Stormwater sediment control will be used as necessary to minimize sediment transport from the site.

Analysis

Installation of structures and control of drainage to minimize the potential for water to contact tailings and mine waste material is a Best Management Practice. Any reduction in contact of mine waste or tailings with flowing water has the potential for reduction in metals loading to the Animas River.

This project is significantly up-gradient from Sunnyside's Stormwater and MLR Permit boundary and if assumptions made are correct, then significant improvement to water quality in the Animas River could be realized. If the springtime variances in water quality detected by Sunnyside's MLR permit monitoring is due to background mineralization, as some up-gradient seep and spring samples indicate, this project may reduce metals loading to the Animas River. Implementation of the work plan will not materially alter the land or create any land use changes or potential uses.

Monitoring

Due to the close proximity to other Animas River monitoring stations and the high flows that occur in the Animas River, no additional monitoring is contemplated for this project. Improvements would be reflected in the monthly monitoring results from A-68.

Budget

SGC will fund this project.

Description of Land Use

Implementation of the work plan will not alter the existing land use in the construction area. The existing use is as natural drainages and wildlife habitat in a mountain park ecosystem.

6. Consistency with Other Plans

Implementation of the work plan will complement and enhance the function of other site permits and plans, specifically Stormwater Permit NO. COR-040054 and MLR Permit NO. M77-378 by extending outside existing boundaries to improve the effectiveness of the existing site runoff controls.

SITE CHARACTERIZATION DATA SUMMARY

SITE: MAYFLOWER HYDROLOGICAL CONTROL

MEDIA SOURCE: Boulder Creek Tails

Analysis Method	Data Source	pH s.u	Al ppm	Cd ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
1:1 Water Bath	SGC		158	5.18	67.2	220	249	2.42	1125
Mod. 1312 TCLP	SGC		14.8	0.334	4.49	8.7	11.7	3.55	80.5
Total Metal	SGC	2	4450	115	3310	52000	1130	26200	36500

SITE CHARACTERIZATION DATA SUMMARY

SITE: MAYFLOWER HYDROLOGICAL CONTROL

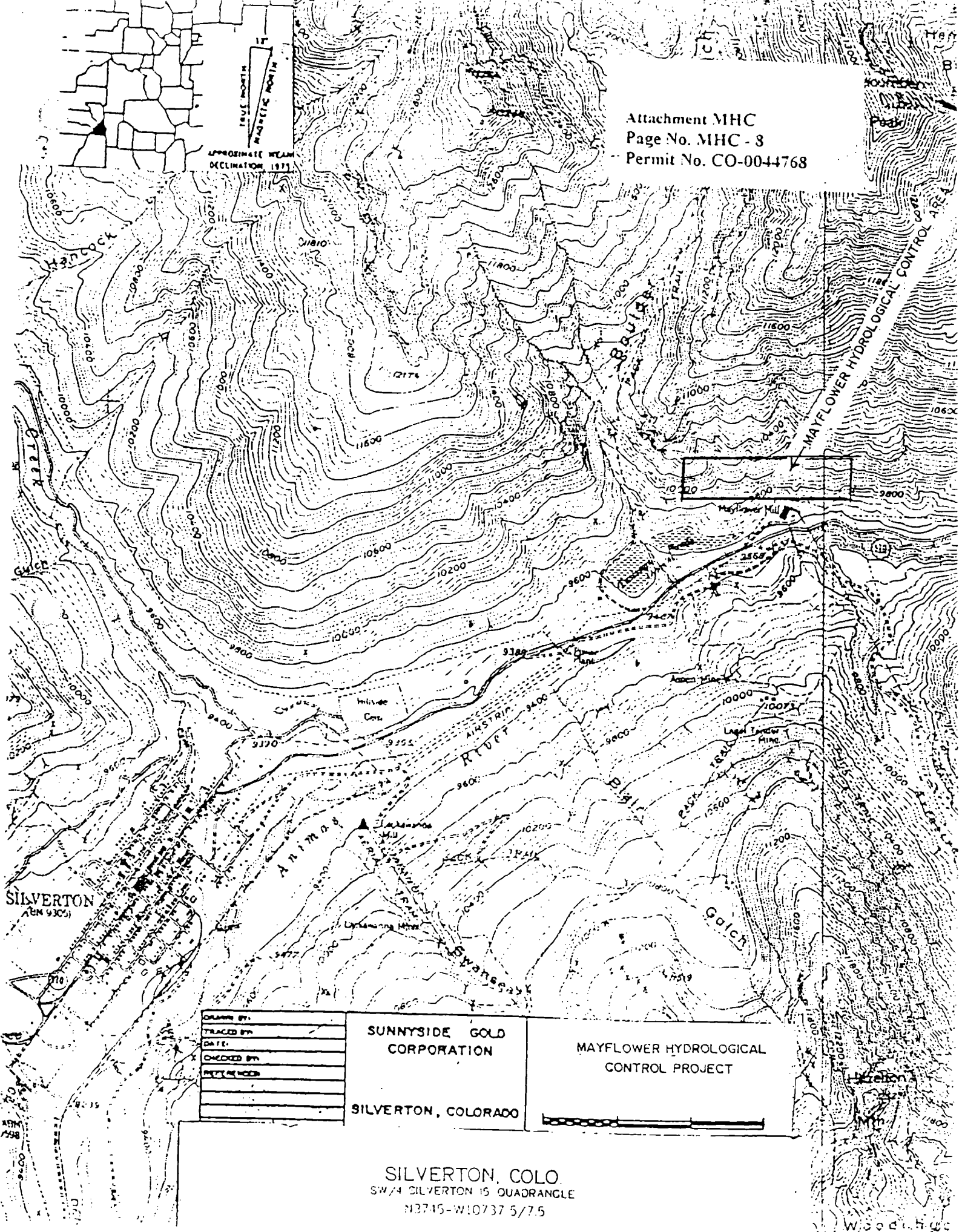
RAINFALL DATA:

Source - Silverton Weather Station

YEAR	Rain (inch)	Snow (inch)	Moisture as Snow (inch)	Total Moisture (inch)
June '91-May '92	9.55	134.75	11.58	21.10
June '92-May '93	9.82	260.5	12.89	22.71
June '93-May '94	7.42	130.5	10.03	17.45

Source Idarado Mining Company- Red Mountain Weather Station

YEAR	Rain (inch)	Snow (inch)	Moisture as Snow (inch)	Total Moisture (inch)
June '91-May '92	8.0	444.5	35.56	43.56
June '92-May '93	8.8	545.5	49.89	58.69
June '93-May '94	7.1	330.5	26.12	33.22



DRAWN BY
TRACED BY
DATE
CHECKED BY
APPROVED BY

SUNNYSIDE GOLD
CORPORATION

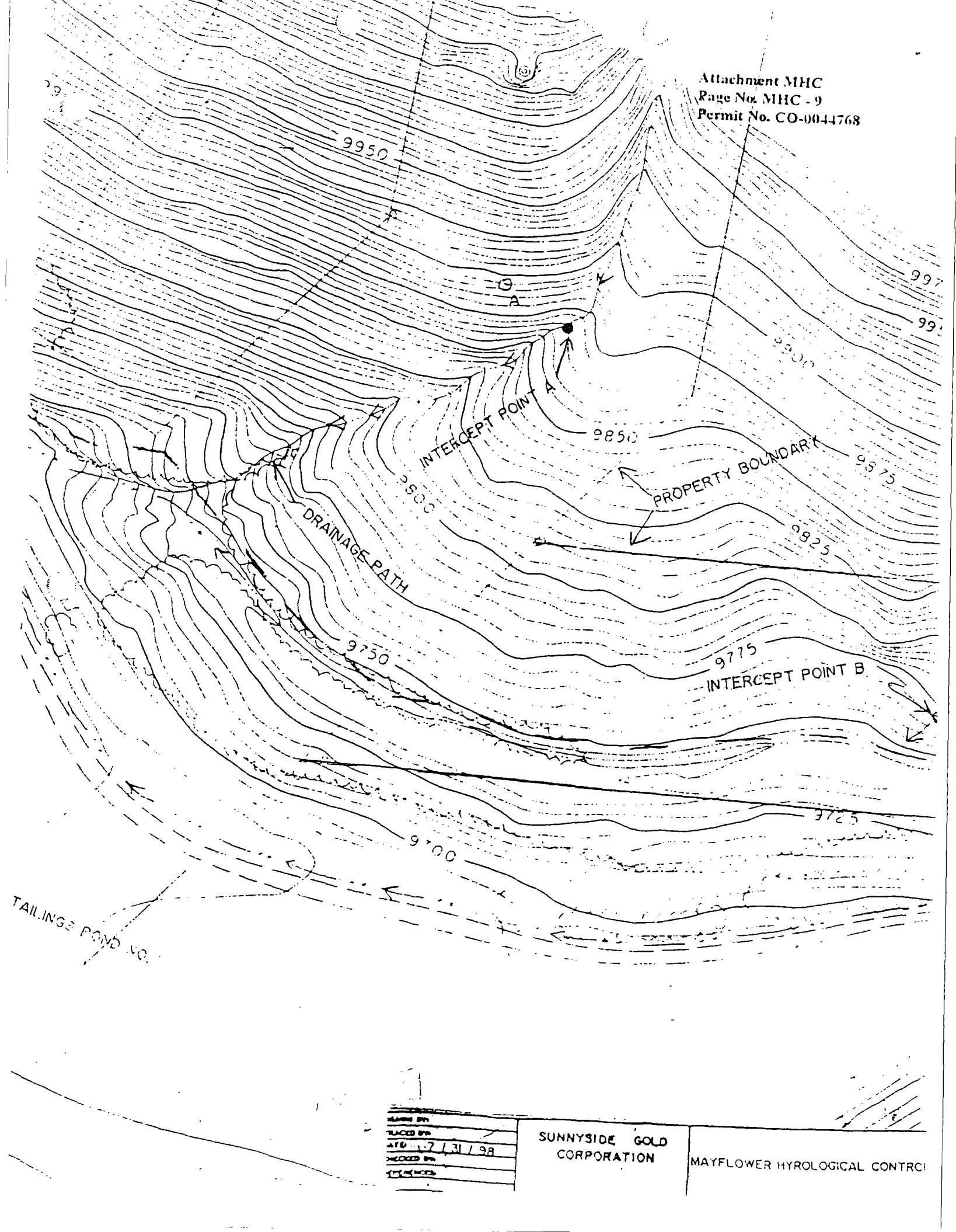
SILVERTON, COLORADO

MAYFLOWER HYDROLOGICAL
CONTROL PROJECT



SILVERTON, COLO.
SW/4 SILVERTON 15 QUADRANGLE
N3745-W10737 5/7.5

Wood, H. C.



MADE BY	
TRACED BY	
DATE	7/31/98
CHECKED BY	
DATE	

SUNNYSIDE GOLD
CORPORATION

MAYFLOWER HYDROLOGICAL CONTROL

PROPERTY SOURCE

DRAINAGE PATH Attachment MHC
Page No. MHC - 10
Permit No. CO-0044768

9775
INTERCEPT POINT-B

9725

PERMIT BOUNDARY

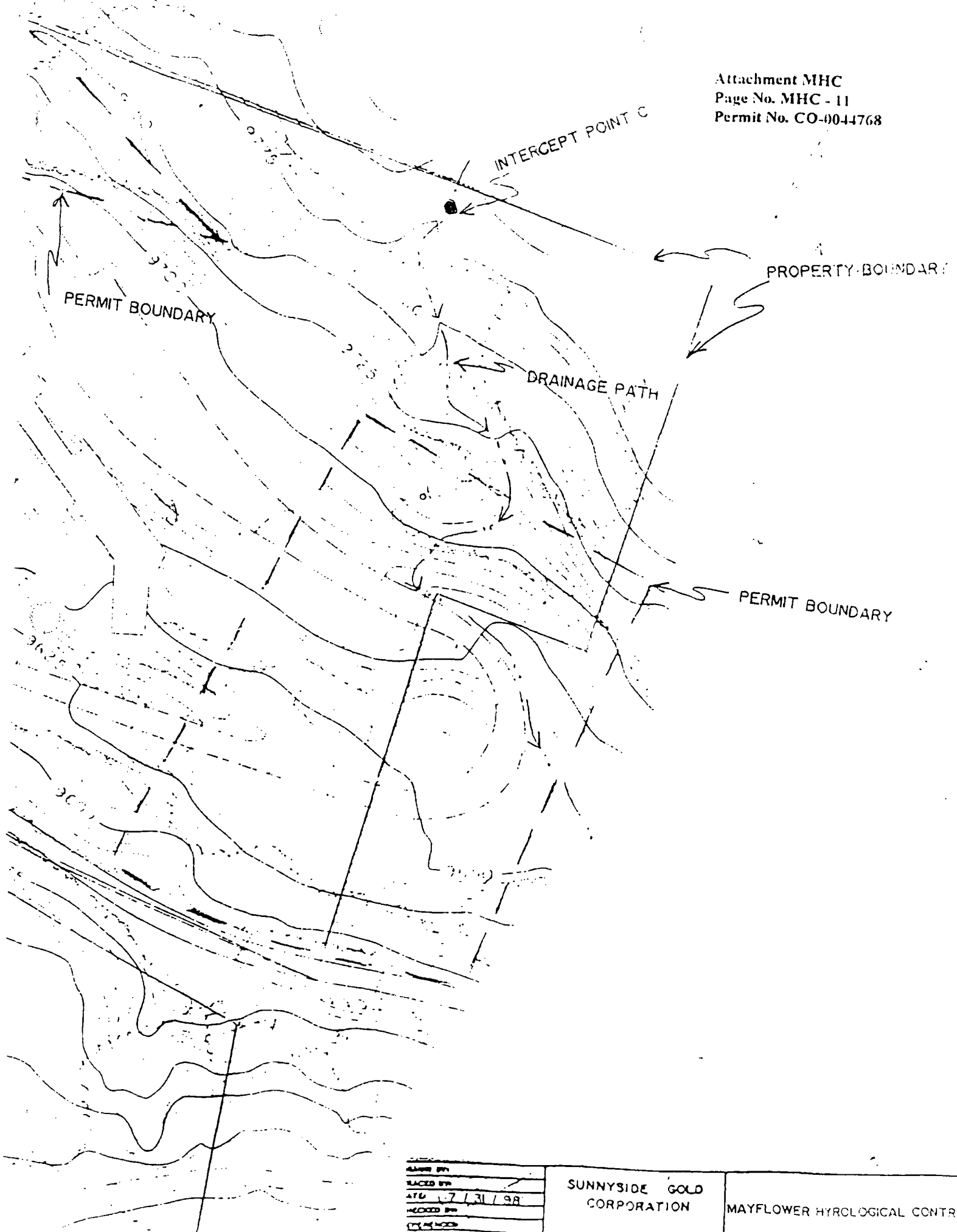
9675

MAYFLOWER MILL

DESIGNED BY	
TRACED BY	
DATE	7/31/98
CHECKED BY	
APPROVED BY	

SUNNYSIDE GOLD
CORPORATION

MAYFLOWER HYROLOGICAL CONTROL



DATE	7/31/98
BY	ATG
REVISION	
DATE	
BY	

SUNNYSIDE GOLD
CORPORATION

MAYFLOWER HYDROLOGICAL CONTR